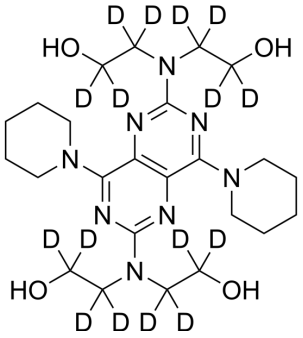
Dipyridamole-d_{16}

Cat. No.:	HY-B0312S1
Molecular Formula:	$C_{24}H_{24}D_{16}N_8O_4$
Molecular Weight:	520.72
Target:	Phosphodiesterase (PDE)
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Dipyridamole-d_{16} is the deuterium labeled Dipyridamole. Dipyridamole (Persantine) is a phosphodiesterase inhibitor that blocks uptake and metabolism of adenosine by erythrocytes and vascular endothelial cells.
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Klabunde, R.E., Dipyridamole inhibition of adenosine metabolism in human blood. Eur J Pharmacol, 1983. 93(1-2): p. 21-6.

[3]. Best, L.C., et al., Mode of action of dipyridamole on human platelets. Thromb Res, 1979. 16(3-4): p. 367-79.

[4]. Aktas, B., et al., Dipyridamole enhances NO/cGMP-mediated vasodilator-stimulated phosphoprotein phosphorylation and signaling in human platelets: in vitro and in vivo/ex vivo studies. Stroke, 2003. 34(3): p. 764-9.

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